

Speciality Graphite Grades	Density g/cm ³	Hardness Rockwell B	Flexural strength N/mm ²	Compressive strength N/mm ²	Young's modulus kN/mm ²	Thermal exp. $\times 10^{-6} K^{-1}$ (20-200°C)	Spe. electrical resistance $\mu\Omega m$	Thermal conductivity Wm ⁻¹ K ⁻¹	Pressing method	Max. standard dimensions mm	Examples of application
Carbon											
R 4340 H	1,64	10/100: 110	50	120	16,0	5,0	40	5	isostatically pressed	1340x555x365 (untrimmed)	continuous casting
R 7141 H (EK 15)	1,55	10/60: 85	15	50	9,5	3,1	55	6	molded	Ø 245x255	glass processing
Graphite											
R 4340 (EK 432)	1,72	10/100: 80	45	90	10,5	2,9	12	90	isostatically pressed	1230x510x330, 1600x410x200, Ø 420x1230	continuous casting
R 4550	1,83	5/100: 95	60	125	11,5	4,0	13	100	isostatically pressed	1230x510x330	continuous casting
R 7162 (EK 47)	1,78	10/60: 80	40	65	22,0	0,6	9	— *	extruded	Ø 20x1000	metal, glass and quartz processing
R 7340 (EK 72)	1,72	10/100: 80	45	90	10,5	2,9	12	90	isostatically pressed	1230x510x330, 1600x410x200	pressure sintering, various
R 7500 (EK 79)	1,77	5/100: 70	50	120	10,5	3,9	14	80	isostatically pressed	1230x510x330, Ø 420x1230	pressure sintering, equip. construction
R 7600 (EK 77)	1,79	10/150: 95	50	120	11,5	3,8	24	50	isostatically pressed	610x325x130	pressure sintering
R 8340 (EK 82)	1,72	10/100: 80	45	90	10,5	2,9	12	90	isostatically pressed	1230x510x330, 1600x410x200	EDM
R 8500 X	1,75	5/100: 80	43	110	10,0	3,8	15	80	isostatically pressed	1230x510x330	EDM
R 8500 (V 1466)	1,77	5/100: 70	50	120	10,5	3,9	14	80	isostatically pressed	1230x510x330, Ø 450x1230	EDM
R 8510	1,83	5/100: 95	60	125	11,5	4,0	13	100	isostatically pressed	1230x510x330	EDM
R 8650 (V 1364)	1,84	5/100: 95	65	150	12,5	3,9	14	90	isostatically pressed	610x325x165	EDM
R 8710 (V 1633)	1,88	5/100: 110	85	240	14,0	4,7	13	100		610x330x130	EDM
R 5300 (EK 90)	1,73	10/100: 80	40	90	10,0	2,7	17	65	isostatically pressed	1230x500x400, Ø 1020x640	crucibles for gas analysis, laboratory
R 5340 (EK 92)	1,72	10/100: 80	45	90	10,5	2,9	12	90	isostatically pressed	1220x480x260	crucibles for gas analysis, laboratory
R 5341 (V 1474)	1,76	10/100: 85	55	90	12,0	2,2	WG II 11 AG I 18 **	120	molded	320x130x70	contacts, laboratory, crucibles for gas analysis
R 5400 (EK 94)	1,75	10/100: 100	45	100	9,5	4,2	14	105	isostatically pressed	1220x480x260, Ø 320x450, 330x615, Ø 655x380	crucibles for gas analysis, laboratory
R 5500 (EK 95)	1,77	5/100: 70	50	120	10,5	3,9	14	80	isostatically pressed	1230x510x330	laboratory
R 5600 (EK 93)	1,79	10/150: 95	50	120	11,5	3,8	24	50	isostatically pressed	610x325x130	crucibles for gas analysis, laboratory
R 5650 (EK 98)	1,84	5/100: 95	65	150	12,5	3,9	14	90	isostatically pressed	1000x325x165	AAS-tubes, contacts, laboratory
R 6300 (EK 90)	1,73	10/100: 80	40	90	10,0	2,7	17	65	isostatically pressed	1230x500x400, Ø 1020x640	semiconductor (crystal pulling)
R 6340 (EK 92)	1,72	10/100: 80	45	90	10,5	2,9	12	90	isostatically pressed	1220x480x260	semiconductor, high purity metal processing
R 6400 (EK 94)	1,75	10/100: 100	45	100	9,5	4,2	14	105	isostatically pressed	1220x480x260, Ø 320x450, 330x615, Ø 655x380	semiconductor production (epitaxy)
R 6500 (EK 95)	1,77	5/100: 70	50	120	10,5	3,9	14	80	isostatically pressed	1230x510x330	semiconductor, high purity metal processing
R 6600 (EK 93)	1,79	10/150: 95	50	120	11,5	3,8	24	50	isostatically pressed	610x325x130	semiconductor (fibre optic technology)
R 6650 (EK 98)	1,84	5/100: 95	65	150	12,5	3,9	14	90	isostatically pressed	1000x325x165	semiconductor (PECVD, LPE), high purity metal processing, solar, nuclear and reactor technology
R 6710 (V 1685)	1,88	5/100: 110	85	240	14,0	4,7	13	100	isostatically pressed	610x330x130	semiconductor

Electrical discharge machining (EDM)
Continuous casting
Glass processing

Analytical Applications

Semiconductor production

*) — Property cannot be measured.
**) WG with grain, AG against grain

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